



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/829,209

04/22/2004

Chang Nam Kim

K-0632

5528

34610

7590

07/18/2007

KED & ASSOCIATES, LLP

P.O. Box 221200

Chantilly, VA 20153-1200

EXAMINER

TADESSE, YEWEBDAR T

ART UNIT

PAPER NUMBER

1734

MAIL DATE

DELIVERY MODE

07/18/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/829,209	KIM, CHANG NAM	
	<b>Examiner</b>	<b>Art Unit</b>	
	Yewebdar T. Tadesse	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11,20-26,29,34 and 36-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11,20-26,29,34 and 36-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Reopen Prosecution***

1. The 103 rejections of Suzuki in view of others are withdrawn. Prosecution on the merits of this application is reopened in view of the 102 rejections with references to Im et al and others as follow:

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) The invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 11, 20-26, 29-34 and 36-38 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Im et al (US 2002/0067117A 1).

As to claim 11, Im et al discloses (see Figs 1-4 and 9-10) a mask (10) capable of being used during deposition of a luminescent layer of an organic electroluminescent device, the mask comprising: a plurality of holes (13) aligned uniformly running parallel to each other along an axis of the mask, including at least one angled surface formed on at least one side each of the plurality of holes (13); and a plurality of bridges (15) located between the plurality of holes, wherein each bridge includes angled surface portions (see Figs 9-10) formed on each inner side surface thereof, and wherein each of the holes has a shape and a size corresponding to a pixel region of the organic

Art Unit: 1734

electroluminescent device, wherein each of the plurality of holes is configured to block an adjacent sub-pixel area during deposition of an organic electro-luminescent material during fabrication of an organic electroluminescent device, and wherein a thickness of the bridges is less than a thickness of the mask in areas of the mask having no angled surface portions (see for example; Fig 4B for the bridge having smaller width than the other area with no etching).

As to claim 20-22, in Im et al shapes of the angled surface formed on opposing side of the strip-slots are symmetric (see Fig 10 A), the opposing sides of the strip slots are perpendicular (see Fig 1-2) to a side of a corresponding bridge of the plurality of bridges and each opposing side of the slot has an upper angled surface and a lower angled surface.

As to claim 23-24, a surface area of first and second upper angled surfaces is the same as (or different from) a surface area of the first or the second upper angled surface (see Fig 10A for same surface area of angled surface and 9A-9D for different surface area angled surface).

As to claim 25-26, a width and a height of the first and second upper angled surfaces is the same as (or different from) a width and a height of the first or the second upper angled surface (see Fig 10A for same width and height of angled surface and 9A-9D for different width and height of angled surface).

With respect to claim 29, Im et al discloses (see Figs 1-4 and 9-10) a mask capable of being used during deposition of a luminescent layer of an organic electroluminescent device, the mask comprising a plurality of strip-type slots (13)

Art Unit: 1734

aligned uniformly running parallel to each other along an axis; and at least one angled surface formed on at least one inner side surface of each of the plurality of strip-type slots (see Figs 9-10), wherein an alignment of a first of the plurality of strip-type slots is different from an alignment of a second of the plurality of strip-type slots (see Figs 1-2), wherein the plurality of strip-type slots are arranged so as to block adjacent deposition areas during deposition of material during fabrication of an organic electroluminescent device.

With respect to claims 30-31, in Im et al the axis is an x-axis and a y-axis (see Fig 1).

As to claims 32-33, in Im et al the first strip type slots is adjacent to the second strip-type slots and the alignment of the slots is same for alternating strip-slots (see Fig 1 for the rows of alternating slots).

Regarding claims 34 and 37, in Im et al shapes of the slot is rectangular (see Fig 1).

With respect to claim 36, in Im et al a plurality of bridges provided between adjacent holes of the plurality of holes (13), wherein each bridge includes angled surface portion formed on each inner side surface thereof.

As to claims 38 and 40, in Im et al the areas of the mask positioned between adjacent holes comprise bridges extending between the adjacent holes (see Fig 2).

4. Claims 11 and 36-39 are rejected under 35 U.S.C. 102(a) as being anticipated by Kim (US 2003/0011299 A1).

As to claims 11 and 36, Kim discloses (see Figs 3A-3D and 4) a mask (10) for use during deposition of a luminescent layer of an organic electroluminescent device, the mask comprising: a plurality of holes (see Fig 4) aligned uniformly running parallel to each other along an axis of the mask, including at least one angled surface formed on at least one side each of the plurality of holes; and a plurality of bridges (60-1) located between the plurality of holes, wherein each bridge includes angled surface portions formed on each inner side surface thereof (see Figs 5A-5C angled surface at the edges of inner surface), and wherein each of the holes has a shape and a size corresponding to a pixel region of the organic electroluminescent device, wherein each of the plurality of holes is configured to block an adjacent sub-pixel area during deposition of an organic electro-luminescent material during fabrication of an organic electroluminescent device, and wherein a thickness of the holes bridges (60-1) is less than a thickness of the mask in areas of the mask (6) having no angled surface portions.

Regarding claim 37, in Kim shapes of the slot is rectangular (see Fig 4).

As to claim 38, in Im et al the areas of the mask positioned between adjacent holes comprise bridges extending between the adjacent holes.

With respect to claim 39, in Kim each hole has an angled surface formed along its full inner perimeter surface (edges of the rectangular hole having angled surface).

5. Claims 11, 20-22, 24, 26, 29-34 and 36-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto (US 5,079,477).

As to claims 11 and 36, Yamamoto discloses (see Figs 1-2) a mask capable of being used during deposition of a luminescent layer of an organic electroluminescent device, the mask comprising: a plurality of holes (3A) aligned uniformly running parallel to each other along an axis of the mask, including at least one angled surface formed on at least one side each of the plurality of holes (13); and a plurality of bridges (6a, 6B) located between the plurality of holes, wherein each bridge includes angled surface portions formed on each inner side surface (see Figs 1-4 and 6a-6d) thereof, and wherein each of the holes has a shape and a size corresponding to a pixel region of the organic electroluminescent device, wherein each of the plurality of holes is configured to block an adjacent sub-pixel area during deposition of an organic electro-luminescent material during fabrication of an organic electroluminescent device, and wherein a thickness of the holes bridges is less than a thickness of the mask in areas of the mask having no angled surface portions (see column 4, lines 12-15).

As to claims 20-22, in Yamamoto shapes of the angled surface formed on opposing side of the strip-slots are symmetric (see Figs 5-6), the opposing sides of the strip slots are perpendicular (see Fig 1-2).to a side of a corresponding bridge of the plurality of bridges and each opposing side of the slot has an upper angled surface and a lower angled surface.

As to claim 24, in Yamamoto a surface area of first and second upper angled surfaces is the different from a surface area of the first or the second upper angled surface (see Figs 5-6).

As to claim 26, in Yamamoto a width and a height of the first and second upper angled surfaces is the same as different from a width and a height of the first or the second upper angled surface (see Figs 5-6).

With respect to claim 29, Yamamoto discloses (see Figs 1-6) a mask capable of used during deposition of a luminescent layer of an organic electroluminescent device, the mask comprising a plurality of strip-type slots (3a) aligned uniformly running parallel to each other along an axis; and at least one angled surface formed on at least one inner side surface of each of the plurality of strip-type slots, wherein an alignment of a first of the plurality of strip-type slots is different from an alignment of a second of the plurality of strip-type slots (see Fig 2), wherein the plurality of strip-type slots are arranged so as to block adjacent deposition areas during deposition of material during fabrication of an organic electroluminescent device.

With respect to claims 30-31, in Yamamoto the axis is an x-axis and a y-axis.

As to claims 32-33, in Im et al the first strip type slots is adjacent to the second strip-type slots and the alignment of the slots is same for alternating strip-slots.

Regarding claims 34 and 37, in Yamamoto shapes of the slot is oval.

As to claims 38 and 40, in Yamamoto the areas of the mask positioned between adjacent holes comprise bridges extending between the adjacent holes (see Fig 1).

With respect to claims 39 and 41, in Yamamoto the slot or each hole has an angled surface formed along its full inner perimeter surface (see Fig 1).



***Response to Arguments***

6. Applicant's arguments filed 04/11/2007 with respect to reference to Im et al have been fully considered but they are not persuasive. As described above Im et al meet applicants' claims 11, 20-26, 29-34 and 36-38 and 40. Applicant's argues that the mask disclosed by Im et al is in different field of endeavor than the mask in the applicant's invention (see pre-Appeal Brief page 2). Examiner respectfully disagrees because the mask (10) disclosed by Im et al is capable of being used during deposition of an organic electro-luminescent material during fabrication of an organic electroluminescent device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yewebdar T. Tadesse whose telephone number is (571) 272-1238. The examiner can normally be reached on Monday-Friday 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tucker Phillip can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1734

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
YTT